

**EXPLANATORY**

## AMENDMENTS TO CLAIMS:

1. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a 5 peripheral wall layer covering said grooves, wherein there are stress release portions at least partially in said peripheral wall layer and/or between said peripheral wall layer and said grooves.
2. (new): The ceramic honeycomb structure according to claim 1, which 10 further has stress release portions at least partially in said peripheral wall layer.
23. (currently amended): The ceramic honeycomb structure according to claim 42, wherein said stress release portions are voids provided in said 15 peripheral wall layer such that they are open on a periphery thereof.
34. (currently amended): The ceramic honeycomb structure according to claim 23, wherein the total length of said voids is equal to or larger than the full length of said ceramic honeycomb structure.  
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45. (currently amended): The ceramic honeycomb structure according to claim 23, wherein voids provided in said peripheral wall layer are in the form of a slit.
56. (currently amended): The ceramic honeycomb structure according to claim 23, wherein voids provided in said peripheral wall layer are cracks in said peripheral wall layer.  
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67. (currently amended): The ceramic honeycomb structure according to claim 1, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

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78. (currently amended): The ceramic honeycomb structure according to claim 67, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

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9. (new): The ceramic honeycomb structure according to claim 7, wherein the total length of a contact portion of the grooves with the peripheral wall layer is 95% or less based on the total length of the grooves.

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10. (new): The ceramic honeycomb structure according to claim 2, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

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11. (new): The ceramic honeycomb structure according to claim 10, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

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812. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein the thermal expansion coefficient of said peripheral wall layer is smaller than those of said cell walls

in a radial direction,

wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of 10.0

5     $\times 10^{-7}/^{\circ}\text{C}$  or less.

913. (currently amended):    The ceramic honeycomb structure according to claim 812, comprising stress release portions at least partially ~~in said peripheral wall layer and/or between said~~ peripheral wall layer and said

10    grooves.

Claims 10-13: Canceled.

14. (currently amended):    The ceramic honeycomb structure according to claim 913, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

15. (previously presented):    The ceramic honeycomb structure according to claim 14, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

16. (new):    The ceramic honeycomb structure according to claim 14, wherein the total length of a contact portion of the grooves with the peripheral wall layer is 95% or less based on the total length of the grooves.

+617. (currently amended):    A ceramic honeycomb structure comprising a

ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, said ceramic honeycomb body being obtained by removing a peripheral wall and nearby cell walls before  
5 firing.

18. (new): The ceramic honeycomb structure according to claim 17,  
wherein said peripheral wall layer has a composition comprising 100 parts by  
mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide  
10 matrix and said amorphous silica has a thermal expansion coefficient of  $10.0 \times 10^{-7}/^{\circ}\text{C}$  or less.

19. (new): The ceramic honeycomb structure according to claim 17,  
wherein there are stress release portions at least partially between said  
15 peripheral wall layer and said grooves.

20. (new): The ceramic honeycomb structure according to claim 19,  
which further has stress release portions at least partially in said peripheral  
wall layer.

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4721. (currently amended): The ceramic honeycomb structure according to  
claim 1, wherein said peripheral wall layer is formed before or after firing  
said ceramic honeycomb body.

25 4822. (currently amended): The ceramic honeycomb structure according to  
claim 4721, wherein said ceramic honeycomb structure has an isostatic  
strength of 1.5 MPa or more.

23. (new): A particulates-capturing filter using a ceramic honeycomb structure according to claim 1.
- 5    24. (new): A particulates-capturing filter using a ceramic honeycomb structure according to claim 7.
- 10    ~~1925.~~ (currently amended): The ceramic honeycomb structure according to any one of claims 1 to ~~1824~~, wherein said cell walls of said ceramic honeycomb structure have a porosity of 50 to 80% and an average pore size of 10 to 50  $\mu\text{m}$ .
- 15    2026. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein said peripheral wall layer is made of a mixture comprising amorphous silica particles and an amorphous oxide matrix, and wherein said amorphous oxide matrix is formed from colloidal silica and/or colloidal alumina, and wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of  $10.0 \times 10^{-7}/^\circ\text{C}$  or less.,
- 20    21. (canceled). The ceramic honeycomb structure according to claim 20, wherein said amorphous oxide matrix is formed from colloidal silica and/or colloidal alumina.

22. (canceled). The ceramic honeycomb structure according to claim 20,  
wherein said peripheral wall layer has a composition comprising 100 parts by  
mass of amorphous silica particles and 2 to 35 parts by mass of an amorphous  
oxide matrix.

5 Claims 23-26: Withdrawn.

10 27. (currently amended): A coating material for forming a peripheral  
wall layer of a ceramic honeycomb structure, comprising 100 parts by mass of  
amorphous silica particules and 2 to 35 parts by mass (on a solid basis) of  
colloidal silica and/or colloidal alumina, wherein said amorphous silica has a  
thermal expansion coefficient of  $10.0 \times 10^{-7}/^{\circ}\text{C}$  or less, an average particle  
size of 1 to 100  $\mu\text{m}$  and an aspect ratio of 10 or less.